UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

Refer to:
1999/01851
1999/01892

December 23, 2002

Penelope Dunn-Woods
USDI Bureau of Land Management
Vale District
100 Oregon Street
Vale, OR 97918

Jeff Blackwood
USDA Forest Service
Umatilla National Forest
2517 S.W. Hailey Avenue
Pendleton, OR 97801

Re: Endangered Species Act Section 7 Formal Consultation and Magnuson-Stevens Act Consultation on the Private Land Access, Recreational Use, and Road Maintenance Ongoing Activities on Lands Administered by the Walla Walla Ranger District, Umatilla National Forest, and the Vale District, Bureau of Land Management, in the Walla Walla River Subbasin, Umatilla County, Oregon.

Dear Ms. Dunn-Woods and Mr. Blackwood:

Enclosed is a biological opinion (Opinion) prepared by the National Marine Fisheries Service (NOAA Fisheries) pursuant to section 7 of the Endangered Species Act (ESA) on the effects of the Private Land Access in the South Fork Walla Walla (SFWW) River, Walla Walla River Subbasin, Umatilla County, Oregon. Also included in this consultation are the recreational use and road maintenance ongoing activities in the SFWW River, that are both "may affect, but not likely to adversely affect" (NLAA) actions for Middle Columbia River (MCR) steelhead (*Onchorynchus mykiss*). NOAA Fisheries concludes in this Opinion that the proposed actions are not likely to jeopardize the continued existence of MCR steelhead. As required by section 7 of the ESA, NOAA Fisheries included reasonable and prudent measures with nondiscretionary terms and conditions that NOAA Fisheries believes are reasonable and appropriate to minimize the impact of incidental take associated with this action.

This Opinion also serves as consultation on essential fish habitat (EFH) for chinook salmon (*O. tshawytscha*) pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation Management Act and implementing regulations at 50 CFR Part 600. An EFH analysis is required for chinook salmon (*O. tshawytscha*).

Please direct any questions regarding this consultation to Brett Farman of my staff in the Oregon Habitat Branch at 541.975.1835, ext. 228.

Sincerely,

for Michael R Crouse

D. Robert Lohn
Regional Administrator

cc: Tim Bailey, ODFW
John Kinney, USFWS
Dorthy Mason, BLM
Kathy Ramsey, USFS
Greg Smith, USFWS

Endangered Species Act - Section 7 Consultation
&
Magnuson-Stevens Act
Essential Fish Habitat Consultation

BIOLOGICAL OPINION

Private Land Access, Recreational Use, and Road Maintenance Ongoing Activities,
South Fork Walla Walla River, Walla Walla River Subbasin,
Umatilla County, Oregon.

Agency:	USDI Bureau of Land Management, Vale District and USDA Forest Service, Walla Walla Ranger District
Consultation Conducted By:	NOAA Fisheries, Northwest Region
Date Issued:	December 23, 2002
Issued by:	for Michael R Crouse D. Robert Lohn Regional Administrator
Refer to:	**1999/01851 (USFS), 1999/01892 (BLM)**

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1. ENDANGERED SPECIES ACT

1.1 Background

On May 20, 1999, the National Marine Fisheries Service (NOAA Fisheries) received a letter, dated May 18, 1999, from the U.S. Forest Service (USFS), Umatilla National Forest (UNF), Walla Walla Ranger District and the Bureau of Land Management (BLM), Vale District (collectively referred to as the Agencies in this biological opinion), requesting a ten year consultation under section 7 of the Endangered Species Act (ESA) on the potential effects of nine actions (proposed and ongoing) in the Walla Walla River subbasin on Middle Columbia River (MCR) steelhead (*Oncorhynchus mykiss*). The letter and attached biological assessment (BA) described the actions. Of the original nine, the following six projects that were described in the May 1999 BA are not included in this consultation for the reasons listed below:

1. The Ski Bluewood Road Use Permit was "Likely to Adversely Affect" (LAA) MCR steelhead, and was addressed in previous biological opinion.[1]

2. Consultation was completed on the Walla Walla Timber Sale project with the issuance of a letter of concurrence.[2]

3. Consultation was completed on the Lewis Creek Prescribed Burn project with the issuance of a letter of concurrence.[3]

4. The BLM South Fork Walla Walla (SFWW) River trail reconstruction project and the Tiger Timber Sale prescribed burn project were completed by the action agency and are therefore no longer considered a part of this consultation.

5. The North End Sheep and Goat Grazing Allotment was combined with the Umatilla River Watershed consultation, as the majority of this allotment is located in Umatilla River watershed.

The remaining three projects: (1) Private land access on the SFWW River; (2) the ongoing road maintenance activities in the Walla Walla River subbasin; and (3) the ongoing recreational use on the SFWW River, were described in the letter and attached BA. Additional information was received from the UNF to update the status of these three projects over the last three months.

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[1] Section 7 Consultation on the Effects of the Proposed Ski Bluewood Road Use Permit on Middle Columbia River Steelhead, Umatilla National Forest, Columbia County, Washington. 02/28/2000. ISB: SRB00-006

[2] Letter was issued January 7, 2000, which concurred with UNF level 1 team determination that the Walla Walla Timber Sale was NLAA MCR steelhead. ISB:SRB00-001

[3] Letter was issued August 23, 2002, which concurred with UNF ESA Streamlining Team (Level 1 Team) determination that the Lewis Creek Prescribed Burn project was NLAA MCR steelhead. Refer to: 1999/01877

This consultation addresses only these three remaining projects, and will cover the described actions for the requested ten-year period, dated from the date of issue of this biological opinion (Opinion). The Agencies concluded that the recreational use, and the road maintenance activities "may affect, but are not likely to adversely affect" (NLAA) MCR steelhead. The original BA submitted by the Agencies also concluded that the private land access was NLAA MCR steelhead. Subsequent Level 1 Team meetings lead the Agencies to update the BA on August 7, 2001, to conclude the private land access "may affect, likely to adversely affect" (LAA) MCR steelhead, and requested that the action be consulted on separately from the original suite of actions contained in the May 1999 BA. In the interest of concluding the consultation on these three remaining projects, NOAA Fisheries includes all three remaining projects from the Walla Walla BA for consultation in this Opinion.

The MCR steelhead was listed as threatened under the ESA by NOAA Fisheries on March 25, 1999 (64 FR 14517), and applied protective regulations to MCR steelhead under section 4(d) of the ESA on July 10, 2000 (65 FR 42422). The objective of this Opinion is to determine whether the subject actions are likely to jeopardize the continued existence of MCR steelhead.

NOAA Fisheries has reviewed the following information to reach its determination and prepare this Opinion:

- The Agencies' BA;
- background information gathered from the U.S. Fish and Wildlife Service Section 10 applications and permits from the year 1999;
- BLM Annual Monitoring Reports for 1999, 2000;
- relevant telephone, fax, and electronic communications;
- notes from site visits to the South Fork Walla Walla (SFWW) River, July 24, 2001, and on July 17, 2002; and
- reference materials (see section 4 of this Opinion).

The extended timeframe required for the issuance of this Opinion is a result of staff changes in the NOAA Fisheries La Grande Field Office, shifts in Umatilla National Forest (UNF) project priorities, and the ESA Streamlining Team's (Level 1 Team) need to address issues that were not considered in the original BA provided by the UNF.

1.2 Proposed Actions

The three proposed activities included in this consultation are the ongoing private land access, the ongoing road maintenance, and the ongoing recreational use. In this Opinion, NOAA Fisheries will address in more detail the private land access because it was determined to be LAA for MCR steelhead by the BLM. In addition, this Opinion will serve as NOAA Fisheries concurrence on the road maintenance and recreational use activities which have been determined to be NLAA for MCR steelhead by the Agencies. Rationale for NOAA Fisheries' concurrence can be found in section 1.5.1 of this Opinion.

Road Management Activities (Ongoing).
Road maintenance activities are intended to safely accommodate commercial, administrative, and recreational use, as well as to minimize ground disturbance associated with construction, ongoing use, or road obliteration. The UNF maintains approximately 209 miles of road within the Walla Walla River subbasin. These lands are distributed within the North Fork Walla Walla (NFWW) River, South Fork Walla Walla (SFWW) River, Mill Creek, North Fork Touchet River, and South Fork Touchet River watersheds. Most of these roads are located outside of PACFISH[4] Category I and II Riparian Habitat Conservation Areas (RHCAs)[5] and generally only cross PACFISH Category IV RHCAs. There are 10 miles of the existing road system located within Category I and II RHCAs. Approximately 1.5 miles of Forest Service (FS) Road 65 are located in the Tiger Canyon RHCA, a PACFISH Category I stream that provides spawning habitat for steelhead. The remaining 7.5 miles of RHCA are on FS Road 64 along the North Fork Touchet River. This 7.5 mile section of FS Road 64 was addressed separately for winter maintenance activities (November 1st to April 1st), which include annual snow removal, sanding, chuck hole repair, and drainage hole maintenance, in NOAA Fisheries February 28, 2000, Opinion (ISB:SRB00-006). All road maintenance activities on this 7.5 mile section of FS Road 64 not covered by ISB:SRB00-006 are included in this consultation. Both FS Road 64 and FS Road 65 are gravel surface roads.

Road maintenance activities included in this consultation include general maintenance, cattleguard maintenance, drainage structure maintenance, sign maintenance and construction, road snag or danger tree felling, logging out, roadside brushing, dust abatement, road closure and obliteration, and snow removal. Detailed descriptions of these activities are included in the BA provided by the Agencies. The following measures are part of the proposed action:

1. No chemical application will take place in RHCAs.
2. Waste material, with the exception of trees felled within RHCAs, will be disposed of outside of RHCAs.
3. Sidecasting will not occur in RHCAs for road maintenance or snow removal activities.
4. All drainage ditch construction or culvert removal, installation, or replacement within RHCAs will be consulted on separately.
5. All water-drafting activities will follow guidelines described in appendix A (UNF measures to accommodate water drafting concerns).
6. Road obliterations within RHCAs will be consulted on separately.

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[4]Environmental Assessment for the Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California. (USDA FS and USDI BLM 1995)

[5]Riparian Habitat Conservation Areas (RHCA) - Portions of watersheds where riparian dependant resources receive primary emphasis, and management activities are subject to specific standards and guidelines. RHCAs include traditional riparian corridors, wetlands, intermittent headwater streams, and other areas where proper ecological functioning is crucial to maintenance of the stream's water, sediment, woody debris, and nutrient delivery systems. Standard buffer widths have been identified to protect these resource values (USDA FS and USDI BLM 1995).

7. Normal drainage runnoff will be directed off of the road by using waterbars and opening snow burms.
8. Snow removal on gravel surfaces will be accomplished using blading equipment with shoes or runners that maintain a minimum clearance of two inches.

Trail and Recreation Activities use on the South Fork Walla Walla River (Ongoing).
The BLM operates a developed trailhead for the SFWW River Trail, designated as day use only. The trailhead begins with a five-acre, 45-vehicle BLM-administered trailhead parking lot located adjacent to Harris County Park at the terminal end of Umatilla County Road #600 on the SFWW River near Milton-Freewater, Oregon (T4N, R37E, S14&15). In 1992, the SFWW River was designated by the BLM as an Area of Critical Environmental Concern (ACEC) under the Baker Resource Management Plan. Recreational use for the SFWW River Trail is open to foot traffic, bicycles, horses, and motorcycles. The UNF has a right-of-way to construct, maintain, and manage a trail across the BLM land to the UNF lands. A locked gate prevents public access by off-highway vehicles (OHVs), however, motorcycles are permitted to use existing roads and trails.

The area is operated with facilities limited to two concrete pit toilets, a dumpster, a loading ramp, signage, and a U.S. Geological Survey (USGS) stream-gauging station. Maintenance activities at Harris Park include toilet pumping, cleaning toilet facilities with chemical cleansers, collecting fees, and picking up trash. Other maintenance needs vary within the ACEC, but may include pulling and/or cutting weeds, painting of buildings and tables with latex paint or stain, treating wood products with linseed oil or other preservatives, removing hazard trees with a chainsaw, re-establishing vegetation, installing signs, and replacing aging structures or facilities. The Agencies are responsible for maintenance of the facilities once per week from mid-May through the end of September. The Agencies will identify potential sources of sediment or areas where riparian vegetation is being impacted by recreational use of these identified developed campsites and manage accordingly.

Private Land Access.
The Agencies' ongoing private land access would continue to allow the existing three private landowners an exception to a road closure. The exception to the road closure is authorized by a letterr from the BLM to the private land owners. The closed road is beyond a locked gate at the terminal end of Umatilla County Road #600, and provides vehicular access to three parcels of private land surrounded by (but not part of) the Agencies' land. The private land is located above Harris Park, near Milton-Freewater, Oregon. Landowners gain access to their land on an unimproved road using full-size automobiles which are typically high-clearance, four-wheel-drive trucks (trucks). The road follows the SFWW River, and crosses the river in ten locations by use of fords. Public access by trucks and ATVs is restricted by a locked gate, but landowners have been issued 15 keys (collectively) to the gate to gain access to the road which leads to their property. The landowners' access is restricted to the Oregon Department of Fish and Wildlife's (ODFW) in-water work window (July 1st - August 15th) for this area (ODFW 2000).

Prior to the current access, four bridges were built on the lower portion of the access road between 1950 and 1970 to allow access by Boise Cascade (who previously owned the land) to harvest timber. After the land became BLM-owned, bridges were not maintained and eventually became unsafe. Because of their condition, these bridges were removed by the BLM in 1991. After the bridge removal, four additional fords were required for landowners to access private land. Access was accomplished by driving up the stream through the river bottom on a path that was cleared yearly by heavy machinery. Currently, landowners access their land by fording the SFWW River with trucks in ten locations within a 2.5 mile reach of the SFWW River on the Agencies' land. Each ford crosses the full width of the SFWW River (which varies for each site). Eight of the ten crossings are perpendicular to the flow, or slightly diagonal to the flow, however, two of the crossings involve driving up the active stream channel for about 100 feet. The travel corridor at each ford is approximately 12 feet wide.

Site visits revealed that in addition to the river fords, there are a few instances where ruts created by vehicle use are supporting juvenile salmonids. In areas where springs or river side channels flow across the road, vehicle use has formed ruts. These ruts have become widened and deepened to the point they are capable of supporting juvenile salmonids.

1.3 Biological Information

The MCR steelhead evolutionarily significant unit (ESU) was listed as threatened under the ESA by NOAA Fisheries on March 25, 1999 (64 FR 14517), and applied protective regulations for MCR steelhead under section 4(d) of the ESA on March 25, 1999 (65 FR 42422). Biological information concerning the MCR steelhead is found in Busby *et al*. (1996). The current status of the MCR steelhead, based upon their risk of extinction, has not significantly improved since the species was listed.

MCR steelhead typically enter the Walla Walla River subbasin from December through March, with peak numbers entering in February through March (BLM 2001). Spawning initiates in February and extends through early June, with the peak between April and early May. Spawning locations are generally distributed throughout the middle and upper Walla Walla River mainstem reaches or in high-order tributaries, including the action area. Incubation of embryos and residence of sac-fry in the substrate may extend through June or July prior to emergence (Saul *et al.*, 2001). Emergence normally occurs from May through July. Juveniles may rear in the subbasin for up to two years, but substantial numbers of juveniles emigrate from the headwaters as one-year-old juveniles. Most juveniles emigrate from late April through May (BLM 2001).

Important features of the adult spawning, juvenile rearing, and migratory habitat for this species are substrate, water quality, water quantity, water temperature, cover/shelter, food (juvenile only), riparian vegetation, space, and safe passage conditions (Bjornn and Reiser 1991, NMFS 1996b, and Spence *et al* 1996). The important features that the proposed project may affect are substrate, water quality, water temperature, cover/shelter, food, riparian vegetation, and safe passage conditions.

Current escapement records for the Oregon portion of the upper mainstem Walla Walla River have been collected at the Nursery Bridge fish ladder and trap, located near Milton-Freewater, Oregon. The number of adult steelhead returning to the Walla Walla River subbasin declined throughout the 1990s, but significantly improved in the 1999-2000 run year, when all Columbia River returns were up (Saul *et al.*, 2001). For the SFWW River, estimated adult escapement for MCR steelhead from 1992-1997 averages less than 500 adults. In 1992 there were approximately 760 adults, and in 1997 there were approximately 400 adult MCR steelhead. However, according to ODFW, there has been a continual increase of returning wild stocks in the SFWW River over the last several years as compared to previous years (BLM 2001).

The historic presence and current absence of natural coho (*O. kisutch*) and chinook (*O. tshawytscha*) salmon populations provides a measure of the degree to which the low elevation anadromous habitat has been degraded in the Walla Walla River subbasin. Runs of spring and fall chinook, chum (*O. keta*), and coho were reportedly historically present in the Walla Walla River subbasin. Fall-Spring chinook, chum, and coho were likely present only near the mouth of the Walla Walla River, and may have been spillover from large runs in the Columbia River. The only naturally-occurring populations of anadromous fish currently present in the Walla Walla River subbasin are MCR steelhead, which are still found throughout much of their historic range in the Walla Walla River subbasin. Accurate historic estimates of MCR steelhead returns to the Walla Walla River subbasin do not exist, but the run size is believed to have been 4,000 to 5,000 fish. Factors linked to declining steelhead population in the Walla Walla River subbasin include changes in flow regimes, riparian conditions, water temperatures, substrate, and passage impediments (Washington State Conservation Commission, 2001).

1.4 Evaluating Proposed Action

The standards for determining jeopardy are set forth in section 7(a)(2) of the ESA as defined by 50 CFR Part 402 (the consultation regulations). NOAA Fisheries must determine whether the action is likely to jeopardize the continued existence of the listed species. This analysis involves the initial steps of defining the biological requirements and current status of the listed species, and evaluating the relevance of the environmental baseline to the species' current status. Subsequently, NOAA Fisheries evaluates whether the action is likely to jeopardize the continued existence of the listed species by determining if the species can be expected to survive with an adequate potential for recovery. In making this determination, NOAA Fisheries must consider the estimated level of mortality attributable to: (1) Collective effects of the proposed or continuing action, (2) the environmental baseline, and (3) any cumulative effects. This evaluation must take into account measures for survival and recovery specific to the listed salmonid's life stages that occur beyond the action area. If NOAA Fisheries finds that the action is likely to jeopardize, NOAA Fisheries must identify reasonable and prudent alternatives for the action. For the proposed action, NOAA Fisheries' jeopardy analysis considers direct or indirect mortality of fish attributable to the action.

1.4.1 Biological Requirements

The first step in the methods NOAA Fisheries uses for applying the ESA section 7(a)(2) to listed MCR steelhead is to define the species' biological requirements that are most relevant to each consultation. NOAA Fisheries also considers the current status of the listed species, taking into account population size, trends, distribution and genetic diversity. To assess the current status of the listed species, NOAA Fisheries starts with the determinations made in its decision to list MCR steelhead for ESA protection and also considers new data available that is relevant to the determination.

The relevant biological requirements are those necessary for MCR steelhead to survive and recover to naturally-reproducing population levels, at which time protection under the ESA would become unnecessary. Adequate population levels must safeguard the genetic diversity of the listed stock, enhance their capacity to adapt to various environmental conditions, and allow them to become self-sustaining in the natural environment. For this consultation, the biological requirements are improved habitat characteristics that function to support successful adult and juvenile migration, spawning and rearing.

MCR steelhead survival in the wild depends on the proper functioning of certain ecosystem processes, including habitat formation and maintenance. The restoration of improperly functioning habitat to a more properly functioning condition will likely lead to improved survival and recovery of MCR steelhead. In conducting analyses of habitat altering actions, NOAA Fisheries defines the biological requirements in terms of a concept called properly functioning condition (PFC), and applies a "habitat" approach to its analysis (NMFS 1999). The current status of MCR steelhead, based on their risk of extinction, has not improved much since the species was listed.

1.4.2 Environmental Baseline

The current range-wide status of the MCR steelhead is found in Busby *et al*. (1996). The identified action will occur within the range of MCR steelhead. The defined action area is the area that is directly and indirectly affected by the proposed action. The direct effects occur at the project site and may extend upstream or downstream based on the potential for impairing fish passage, stream hydraulics, sediment and pollutant discharge, and the extent of riparian habitat modifications. Indirect effects may occur throughout the watershed, where actions described in this Opinion lead to additional activities, or affect ecological functions, contributing to stream degradation. As such, the action area for the proposed activities includes the immediate portions of the watershed containing the project, and those areas upstream and downstream that may reasonably be affected, temporarily or in the long term, by the proposed project.

Environmental baseline conditions within the action area were evaluated at the project level and watershed scale. The results of this evaluation are based on the "Matrix of Pathways and Indicators" (MPI) described in *Making Endangered Species Act Determinations of Effects for Individual or Grouped Actions at the Watershed Scale* (NMFS 1996). This method assesses the current conditions of instream, riparian, and watershed factors that collectively provide properly functioning aquatic habitat essential for the survival and recovery of the species. A description

of the Walla Walla River subbasin (including North Fork Walla Walla (NFWW) River, SFWW River, the mainstem Walla Walla River, Mill Creek, and the Touchet River) follows. Environmental baseline conditions are summarized in Table 1.

South Fork Walla Walla River.

The SFWW River originates at in the Blue Mountains at Deduct Springs at an elevation of 5,400 feet. From its origin, it flows south and then west for approximately 14 miles through deep canyon before reaching the National Forest boundary near the mouth of Bear Creek at an elevation of 2,400 feet. Most of the upper watershed is a roadless area, but it does have trails that parallel and lead to the river. Many springs along this part of the river add to the river's flow and help maintain its cool temperatures. Rainbow/steelhead trout, bull trout, and sculpins (Cottus sp.) are present in this section of the stream. Historically, spring chinook salmon used this section of the river but they have been extirpated for the past 50-70 years until recent re-introduction by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR).

After reaching the National Forest boundary, the river flows across about a half mile of private land which contains recreational cabins. From the private land, the river flows across BLM-managed land for about four miles before reaching Harris County Park at an elevation of 2,000 feet. Between Harris Park and the private cabins the river is paralleled by a trail. A primitive road also provides access to the area for land owners with land above the locked gate at the park. This road intersects the trail in several places and crosses the river (by ford) in ten locations between Harris Park and the private cabins.

From Deduct Springs to Harris Park, the river flows through mostly Rosgen B-type (moderate gradient, moderately entrenched) stream channels (Rosgen 1996) with some A-type (steep, entrenched) channels present in the upper reaches. Downstream of Harris Park the valley floor widens and is used for agricultural purposes. Orchards are common from the park downstream about seven miles to the forks of the Walla Walla River at an elevation of 1,400 feet. Historically, the river probably flowed through a C-type (low gradient, meandering) channel for this reach however, much of the river is now confined between flood control levees. A county road on the valley floor parallels the river. The maximum mean flow during spring is approximately 575 cfs. The minimum flows in the fall are approximately 75 cfs. The SFWW River has been described as one of the last remaining areas of refugia for MCR steelhead in the Walla Walla River subbasin with properly functioning fish passage, water quality, water temperature, water quantity and changes in flow regime (Washington State Conservation Commission 2001).

Table 1. Summary of Subbasin and Watershed Conditions

MPI PARAMETERS[1]		Walla Walla River Subbasin[2] (4th code HUC 17070102)	WATERSHEDS[3]				
			NFWW River	SFWW River	Mill Creek	NF Touchet River	SF Touchet River
Water Quality	Temperature		FAR	FA	FA	FAR	U
	Sediment	U	U	U	U	U	U
	Chem/Cont.	NPF	FA	FA	NPF	FA	FA
Access	Physical barriers	NPF	FA	FA	FA	FA	U
Habitat Elements	Substrate Embededness	NPF	U	FA	U	FAR	FAR
	Large Woody Debris	NPF	U	FA	U	FA	FA
	Pool Frequency	FAR	U	FAR	U	NPF	U
	Pool Quality	FAR	FAR	FAR	FAR	FAR	FAR
	Off Channel Habitat	NPF	FAR	FAR	FAR	FAR	FAR
	Refugia	FAR	NPF	FA	FAR	NPF	U
Channel Conditions & Dynamics	Width/depth ratios	FAR	U	FAR	U	FAR	U
	Streambank Condition	U	FA	U	U	U	U
	Floodplain connectivity	FAR	FA	FA	FA	FA	U
Flow/ Hydrology	Change in Peak Base Flow	NPF	U	U	U	U	U
	Drainage Network Increase	FAR	FAR	FAR	FAR	FAR	U
Watershed Condition	Road Density and Location	FAR	FAR	FA	FA	FAR	U
	Disturbance History	FA	FA	FA	FA	FA	FA
	Riparian Reserves	FA	FA	FA	FA	FA	FA

[1] The condition of each MPI parameter is indicated in the following manner: FA= functioning appropriately, FAR= functioning at risk, NPF= not properly functioning, U=data unavailable

[2] MPI parameters addressing the Walla Walla River Subbasin are based on conditions found in all associated watersheds, including the lower portion of the drainage. The lower mainstem Walla Walla River has been impacted more heavily than the five watersheds that are addressed in more detail in this table.

[3] Only watersheds which are within the proposed action area are described in this table.

In 1992, the 1,955 acre SFWW River area was designated by the BLM as an ACEC defined as (43 USC 1702):

> The term 'areas of critical environmental concern' means areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.

On March 8, 1999, the BLM notified the public of an emergency closure and restriction on public lands in the SFWW River ACEC (64 FR 11036). This closure included restrictions on vehicular access, resulting in applications from private landowners requesting permission to cross BLM lands in order to reach private land.

Annual monitoring reports for the SFWW River have been completed for the years 1999 and 2000 by the BLM. The results of these monitoring surveys supports information that cites the SFWW River above Harris Park (RM 8) as in functioning appropriately, with some of the highest frequencies of pools and large woody debris in the region. This additional information suggests that the original BA, written in 1998, underrated pool frequency or large woody debris (LWD) in the River, or that conditions have improved since the information that was used to write the Agencies' BA.

North Fork Walla Walla River.

The NFWW River originates about two miles to the southwest of Deduct Springs at an elevation of 5,400 feet. The river flows west and southwest in A-type and B-type stream channels for about seven miles before reaching the UNF boundary at an elevation of 2,600 feet. The stream is within the Walla Walla River Roadless Area and is paralleled by a motorized trail for most of its length. The lower 1.5 miles of this reach contains a very primitive road. Very few springs are present within this reach and the flow of the river remains relatively small as the river leaves the Forest.

The valley floor widens slightly about a mile downstream from the Forest boundary. A primitive road is present from the Forest boundary downstream about seven miles to the end of the county road at an elevation of 1,800 feet. The valley floor is used extensively for cattle grazing along this section of the river. A C-type channel is present throughout most of this reach.

From the end of the county road it is about three miles downstream to the forks of the Walla Walla River which is at an elevation of 1,400 feet. Much of the land along this section of the river is used for orchards and small farms. Rainbow/steelhead, bull trout, and sculpins have been noted in the NFWW River.

Mainstem Walla Walla River.

The mainstem of the Walla Walla River begins at the confluence of the NFWW and the SFWW rivers at an elevation of 1,400 feet. The river flows west for about two miles and then northwest for about two more miles before reaching the town of Milton-Freewater, Oregon. The valley

floor along this section of the river is relatively wide and is dominated by orchards. The stream probably used to flow through a C-type channel, but is now often confined between flood control levees.

Two main irrigation diversions occur at Milton-Freewater which remove most of the remaining flow from the stream during the summer months. The ODFW annually conducts a fish rescue effort as the stream below the diversion dries up. Several adult steelhead and numerous rainbow/steelhead parr are rescued each year due to this effort. Some flow is restored several miles downstream from the diversion by springs located in the stream bed. From Milton-Freewater, downstream about four miles to the Oregon-Washington border, the river has been channelized. Agricultural activities strongly influence the river from the state line to its confluence with the Columbia River some 40 miles downstream. Sediment from dry land wheat farming turns the river an opaque brown during most rain events. Dewatering for irrigation purposes has caused the extinction of spring chinook salmon and also interferes with the migration of steelhead. Encroachment of farms toward the river has removed riparian vegetation.

Mill Creek.
Mill Creek originates in the state of Washington about two miles south of Table Rock at an elevation of 5,600 feet. The stream flows in a general westward direction though a deep canyon for about seven miles before crossing into Oregon near Paradise Creek at an elevation of 2,700 feet. About three miles further downstream, the creek reaches the city of Walla Walla's municipal water intake structure at 2,400 feet. The land upstream from the city's water intake is designated as a municipal watershed and is protected from most human activities, including entry without a permit. Land ownership in the watershed is a mix of UNF and the City of Walla Walla. An extensive trail system is present within the watershed and is used for patrol purposes. Between its source and the water intake structure many springs add to the flow of Mill Creek. A B-type stream channel is present through most of this reach.

The water intake structure consists of an eight-foot-high diversion dam and screening building. Upstream fish passage over the dam's spillway is doubtful due to the shape of its crest. A fish ladder was constructed along with the dam, but was considered ineffective. A new ladder was constructed in the early 1980s, and it is believed that this ladder provides good upstream fish passage.

From the water intake structure downstream approximately 13 miles to the Bennington Lake diversion dam, the valley floor widens, the stream channel changes from a B-type to a C-type, and human development activities increase. Small farms and rural non-farm housing are the major uses of the land bordering the stream. A considerable amount of instream work took place after the flooding that occurred in 1996.

From the Bennington Lake diversion dam on the eastern edge of the city of Walla Walla downstream approximately seven miles to the Rose Street bridge on the west end of town, Mill Creek flows through a heavily channelized system. Through downtown Walla Walla this

consists of a concrete channel. The channel was made with baffles to allow resting places for steelhead, but the effectiveness of this design is unknown. During the summer months this reach is dry due to irrigation diversions. The largest of these diversions (Yellowhawk and Garrison Creeks) divert water to the Walla Walla River.

Yellowhawk Creek is a fish-bearing stream, and steelhead are known to migrate through it from the Walla Walla River to Mill Creek. In so doing, the steelhead bypass most of the channelized section of Mill Creek. Garrison Creek is a fish-bearing stream in its lower reaches, but it is doubtful that adult fish can migrate through its entire length due to limited flow in its upper reaches.

West of the city of Walla Walla, Mill Creek flows through farmland for another five miles before entering the Walla Walla River. Flow in this section of the stream is maintained through the summer due to effluent from the city of Walla Walla's sewage treatment plant.

North Fork Touchet River.
The North Fork of the Touchet River originates about four miles north of Table Rock at an elevation of 5,000 feet. The stream descends eastward for about a mile to an elevation of 4,200 feet where a small stream enters from the south. Lands draining to this tributary have been developed as a commercial ski area. During the mid-1980s, large amounts of sediment were produced from the ski area. This sediment entered the North Fork Touchet River and may have affected steelhead production. Rehabilitation measures taken by the ski area operator have since reduced sediment inputs considerably. Exceedence of the Washington Department of Ecology's turbidity standards has decreased from an average of 41 days per year from 1987 to 1991, to six days in 1994.

From the ski area, the stream flows to the northeast approximately four miles through B-type channels before reaching the UNF boundary near the mouth of Spangler Creek at an elevation of 3,200 feet. A road parallels the stream along this reach, providing general access to the National Forest and winter access to the ski area. The road was mostly constructed out of the floodplain and the stream remains well forested and shaded along this reach. All of the road is within the RHCA as defined by PACFISH.

After leaving the UNF, the North Fork of the Touchet River flows north for about eight miles before it is joined by the Wolf Fork. Throughout this reach the valley floor widens, forested lands give way to grasslands, and human development increases. Small farms make up most of this development.

From the mouth of the Wolf Fork, the North Fork of the Touchet River flows another three miles before joining with the South Fork to form the mainstem of the Touchet River. From here, the river flows another 57 miles through farmland before entering the Walla Walla River. A considerable amount of the stream has been channelized by the construction of levees, especially as the river passes through the towns of Dayton, Waitsburg, and Prescott, WA.

1.5 Analysis of Effects

1.5.1. Effects of Proposed Action

The effects determinations in this Opinion were made using a method for evaluating current aquatic conditions, the environmental baseline, and predicting effects of actions on them. This process is described in *Making Endangered Species Act Determinations of Effect for Individual and Grouped Actions at the Watershed Scale* (NMFS 1996). The effects of the action are expressed in terms of the expected effect (restore, maintain, or degrade) on aquatic habitat factors in the action area. For the proposed actions, all habitat factors for the five affected watersheds within the Walla Walla River subbasin will be maintained in the long term.

Concurrence with NLAA Activities.
Based on the information provided by the UNF, NOAA Fisheries concurs with the UNF's determination that the ongoing road maintenance and recreational activities are NLAA MCR steelhead. A brief explanation of the reasons for NOAA Fisheries concurrence follows.

Road Maintenance.
Road maintenance activities performed by the UNF in the Walla Walla River subbasin are designed to accommodate commercial, administrative, and recreational uses of roads in a manner that addresses the safety of users and comply with the Standards and Guidelines in PACFISH.

Road maintenance activities generally help reduce the sediment input from roads over time, however the activities themselves have the potential to produce sediment that may reach the stream. Drainage structure maintenance can cause short localized increases in sediment delivery to streams, however maintaining proper drainage associated with roads is expected to decrease the chronic sediment input that roads could contribute without proper maintenance. Though small amounts of sediment may be mobilized during road maintenance activities, inputs into streams are expected to be small and short in duration. These potential sediment inputs are expected to be negligible and will not cause detrimental effects to MCR steelhead or their habitat.

Roadside brushing, danger tree felling, and logging out activities have the potential to result in the loss of some stream shade. The amount of vegetation that is removed from these activities within RHCAs is localized and minimal. In addition, portions of downed trees within an RHCA that are over six inches in diameter will not be removed. Stream temperature is not expected to increase from these activities.

Recreational Use.
Recreational use of the trailhead located on the SFWW River provides recreationalists with access to a trail along the SFWW River.

Use of the trail and trailhead facilities are expected to have minimal effects on riparian vegetation and sediment input. Some bank trampling has occurred, but it tends to be localized and small in scale. Because the stream is already well shaded and bank trampling is not expected to appreciably reduce the regeneration of trees, bank trampling is not expected to result in detrimental affects to MCR steelhead. The trail does expose more mineral soil than would normally be expected without trail use. Because trail use has been restricted to exclude recreational OHV or truck use by the general public, vegetation along the bank has begun to recover. As the trail only occasionally comes within a few feet of the water, and the sand/silt portion of the substrate is less than 4%, trail use is not expected to increase sediment input or cobble embededness.

Maintenance of the facilities at the trailhead are intended to reduce impacts by creating a defined parking area, and to control waste associated with human use. Providing concrete pit toilets and trash receptacles helps reduce the frequency and magnitude of chemical or nutrient inputs into the stream.

Effects of LAA Activities.
The private land access activity on the SFWW River was determined by the UNF to be LAA MCR steelhead. The effects of the private land access activity are described below.

Impacts of the proposed action on stream habitat and fish populations can be separated into direct and indirect effects. Direct effects are those which contribute to the immediate loss or harm to individual fish or embryos (*e.g.*, directly stepping on or crushing a fish, trampling a redd that results in the actual destruction of embryos, or dislodging the embryos from the protective nest and ultimately destroying eggs).

Indirect effects are those impacts which occur at a later time, causing loss of specific habitat features (*e.g.*, undercut banks, sedimentation of spawning beds), localized reductions in habitat quality (*e.g.*, sedimentation, loss of riparian vegetation, changes in channel stability and structure), and ultimately cause loss or reductions of entire populations of fish, or widespread reductions in habitat quantity and/or quality. NOAA Fisheries does expect some negative effects in the short-term. Specific effects are discussed below.

Landowner access is limited to the ODFW in-water work window (July 1st to August 15th). By limiting access to the ODFW in-water work window, impacts to spawning fish, eggs, and pe-emergence alevins are less likely to occur.

Operation of trucks in the stream channel could result in death or injury of MCR steelhead. As trucks ford the river, there is potential to harass rearing juvenile steelhead and interrupt daily activities such as feeding and sheltering. Because there are ruts in the road adjacent to the stream that can fill with water, and which are capable of supporting juvenile salmonids, physical crushing or stranding of juvenile MCR steelhead is likely as the ruts are constrained and they do not allow ample room for juveniles to avoid crushing injury. Use of trucks in the watercourse also creates the opportunity for introduction of fuel, lubricants, or similar contaminants into the

riparian zone or water where they can injure or kill aquatic organisms. This is especially true with privately owned trucks that are not inspected regularly for fluid leaks, external oil, grease, dirt, and mud. Lubricants and fuels can be highly toxic to aquatic life, and can cause death or injury to fish, as well as adverse sublethal effects to salmonids (Arkoosh *et al.* 1991). In addition to truck use, there is potential for occasional fording attempts made by motorcyclists. Motorcycle fording attempts are expected to be infrequent because of the depth and swift current found at most of the fording sites. In the event of motorcycle fording attempts, effects are expected to be similar.

Although low-water fords have potential to introduce sediment into watercourses, large increases in sediment and substrate embededness are not expected from truck fording because less than 2% of streambanks in the area are currently eroding, and the sand/silt component of substrate is less than 4%. Some monitoring was done by the BLM in recent years at crossing sites to measure sediment inputs by vehicle fording. Sediment that was released during crossings was carried downstream and dispersed in under one minute without visible coverage of substrate. Because sediment content in the substrate is low and flows in the SFWW River are continually high enough to keep sediment suspended and released continually, increased embededness due to truck fording is not expected.

1.5.2 Cumulative Effects

Cumulative effects are defined in 50 CFR 402.02 as "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." The action area for this consultation includes the streambed and streambanks, including the riparian areas of the SFWW River, within the area of the project site and for a short distance upstream and downstream.

Other activities within the watershed have the potential to affect fish and habitat within the action area. Use of private lands will continue in the project area. Expansion beyond this use is not expected because the number of landowners and types of land use activities are not expected to change. Adverse impacts to the SFWW River are generally associated with access to private lands and recreational activities (BLM 2001). Potential impacts associated with non-motorized recreation activities may have localized, minor impacts to aquatic habitats.

1.6 Conclusion

NOAA Fisheries concludes that, when the effects of the proposed action are added to the environmental baseline and cumulative effects occurring in the action area, they are not likely to jeopardize the continued existence of MCR steelhead. NOAA Fisheries determined that the proposed action has the potential to harass or crush juvenile MCR steelhead. The action also has the potential to add small quantities of sediment or toxic vehicle fluids to the stream, as well as disturb streamside vegetation, and cause soil compaction. Because of protective measures described in the Agencies' BA, the amount of take is expected to be minimal.

NOAA Fisheries' conclusions are based on the following considerations: (1) Vehicular access is restricted to ODFW's preferred inwater work window period of July 1st - August 15th for the SFWW River to minimize impacts to spawning MCR steelhead, redds, and emerging juveniles; (2) vehicular traffic is minimal above the locked gate at the trailhead because access is restricted to the private land owners that require access to their lands.

Although continued vehicular traffic in the SFWW River will cause adverse effects to MCR steelhead by increasing likelihood of physical injury through: (1) Crushing; (2) creating potential stranding sites for juveniles; (3) increasing the levels of sediment and turbidity; and (4) decreasing the quantity of riparian vegetation, the aquatic habitat indicators will be maintained in the long term. The proposed action is not expected to impair current properly functioning habitats, appreciably reduce the functioning of already impaired habitats, or retard the long-term progress of impaired habitats toward properly functioning condition essential to the long-term survival and recovery at the population or ESU scale.

1.7 Conservation Recommendations

Section 7 (a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Conservation recommendations are discretionary measures suggested to minimize or avoid adverse effects of proposed actions on listed species or to develop additional information. NOAA Fisheries believes that the following conservation recommendations regarding the private land access should be implemented:

1. Pursue funding to implement measures that will eliminate or reduce the number or frequency of fording activities by methods such as bridges or alternate access routes.

In order for NOAA Fisheries to be kept informed of actions minimizing or avoiding adverse effects, or those that benefit listed species or their habitat, we request notification of accomplishment of any conservation recommendation.

1.8 Reinitiation of Consultation

Reinitiation of consultation is required if: (1) The action is modified in a way that causes an effect on the listed species that was not previously considered in the BA and this Opinion; (2) new information or project monitoring reveals effects of the action that may affect the listed species in a way not previously considered; (3) the amount or extent of incidental take is exceeded or expected to be exceeded; or (4) a new species is listed or critical habitat is designated that may be affect by the action (50 CFR 402.16). The BLM may also be required to reinitiate consultation if the proposed actions are not consistent with conservation measures developed through the pending consultation on land and resource management plans for Federal land management units in the Mid- and Upper Columbia River basins.

2. INCIDENTAL TAKE STATEMENT

Section 9 and rules promulgated under section 4(d) of the ESA prohibit any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct) of listed species without a specific permit or exemption. "Harm" is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, and sheltering. "Harass" is defined as actions that create the likelihood of injuring listed species by annoying it to such an extent as to significantly alter normal behavior patterns which include, but are not limited to, breeding, feeding, and sheltering. "Incidental take" is take of listed animal species that results from, but is not the purpose of, the Federal agency or the applicant carrying out an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of, the agency action is not considered prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

An incidental take statement specifies the impact of any incidental taking of endangered or threatened species. It also provides reasonable and prudent measures that are necessary to minimize impacts and sets forth terms and conditions with which the action agency must comply in order to implement the reasonable and prudent measures.

2.1 Amount or Extent of the Take

NOAA Fisheries anticipates that the subject actions covered by this Opinion are reasonably certain to result in incidental take of juvenile MCR steelhead, because of detrimental effects from mortality of juveniles unable to avoid crushing by passing vehicles (lethal), possible stranding of juveniles in vehicle created ruts (potentially lethal), increased potential for contaminant introduction into the stream (potentially lethal), minor increase in sediment input levels (non-lethal), and minor reduction in riparian habitat (non-lethal).

Some level of incidental take is expected to result from direct injury or mortality of juvenile MCR steelhead by crushing during private land access by truck at the ten fording locations or on-road depressions that contain juveniles. Potentially lethal take may occur if juveniles are stranded in depressions caused by vehicles and are unable to escape. There is also potential for incidental take in the form of death or sub-lethal effects if toxicants are introduced into the water. Non-lethal take in the form of behavior modification (avoidance) is expected from minor riparian disturbance, vegetation removal, and decreased shade. In addition, there is potential for minor sedimentation and minor riparian disturbance. Effects such as these are unquantifiable in the short term and are not expected to be measurable as long-term harm to habitat features or by long-term harm to salmonids behavior or population levels. Therefore, although NOAA Fisheries expects the habitat-related effects of these actions to cause some low level incidental take, the best scientific and commercial data available are not sufficient to enable NOAA Fisheries to estimate a specific amount of incidental take because of those habitat-related effects. In instances such as these, NOAA Fisheries designates the expected level of take as "unquantifiable".

Because of the inherent biological characteristics of aquatic species such as MCR steelhead, the likelihood of discovering take attributable to this action is limited. Take associated with the effects of actions such as these are largely unquantifiable in the short term, and may not be measurable as long-term effects on the species' habitat or population levels.

In addition, incidental take in the form of capture and possible direct mortality is expected if any fish capture and release operations are undertaken by the Agencies, pursuant to the terms and conditions in section 2.4 of this Opinion, to avoid direct injury or mortality of stranded juveniles. Because these operations will be supervised or carried out by a fisheries biologist, direct mortality should be kept to a minimum. Also, the number of pools and variance of fish numbers within those pools is difficult to quanitfy. In instances such as these, NOAA Fisheries designates the expected level of take as "unquantifiable".

Therefore, even though NOAA Fisheries expects some low level incidental take to occur due to the actions covered by this Opinion, the best scientific and commercial data available are not sufficient to enable NOAA Fisheries to estimate a specific amount of incidental take to the species itself.

2.2 Effects of the Take

In this Opinion, NOAA Fisheries has determined that the level of anticipated take is not likely to result in jeopardy to MCR steelhead when the reasonable and prudent measures are implemented.

2.3 Reasonable and Prudent Measures

NOAA Fisheries believes that the following reasonable and prudent measures are necessary and appropriate to avoid or minimize take of MCR steelhead from the actions covered in this Opinion. The BLM shall:

1. Minimize the likelihood of incidental take resulting from access to private lands using Umatilla County Road #600 by restricting use to the preferred in-water work period and avoid or minimize adverse effects to riparian and aquatic systems.

2. Complete a comprehensive monitoring and reporting program to ensure implementation of conservation measures found in this Opinion.

2.4 Terms and Conditions

The BLM must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. To implement reasonable and prudent measure #1 (use of Umatilla County Road #600), the BLM shall:
    a. Limit access to the restricted section of Umatilla County Road #600 to the preferred in-water work period between July 1 and August 15, *provided that*, each year prior to July 1 the BLM will use spawning survey data for that year to determine whether active spawning redds are known or suspected to be present at road crossings or within 300 feet downstream. If active redds are known or suspected to be present, the BLM will delay opening the road until July 15, or as long as necessary for fry to emerge from the affected redds.
    b. Ensure that all vehicles that will operate instream will be free of fluid leaks, external oil, grease, dirt, or mud.
    c. Prohibit all instream work, except vehicle crossings.
    d. Whenever feasible, maintain the road and road stream crossings as follows.
        i. Place roads and crossings on bedrock or stable substrates.
        ii. Minimize the number of crossings and place essential crossings downstream of, or more than 300 feet upstream of, known or suspected spawning areas, where vehicle use will not damage sensitive soils, slopes, or vegetation. Avoid the mid- to downstream end of gravel point bars.
        iii. Design and construct or improve essential crossings to accommodate reasonably foreseeable flood risks, including associated bedload and debris, and to prevent the diversion of streamflow out of the channel and down the road if the crossing fails.
        iv. Use additional rock as necessary to stabilize soils and slopes.
        v. Stabilize bank cuts (if any) with vegetation and protect approaches and crossings with river rock, not crushed rock, when necessary to prevent erosion.
        vi. Ensure that the road stream crossings themselves do not create barriers to the passage of adult and juvenile fish.
            (1) Identify areas on the travel way or in the stream crossing that can trap or strand juvenile fish. Reduce the risk of future standings by methods such as smoothing areas with rock or other suitable fill materials.
            (2) If stranded fish are present, a fishery biologist experienced with of ESA-listed fish shall attempt, or supervise, the capture and release of fish as close to the stranding site as possible using whatever methods he or she deems prudent to minimize the risk of injury to listed species. If electrofishing equipment is used, the operation must comply with NOAA Fisheries' electrofishing guidelines.[6]
    e. Ensure that if a sick, injured or dead specimen of a threatened or endangered species is found, the finder must notify the Vancouver Field Office of NOAA Fisheries Law Enforcement at 360/418-4246. The finder must take care in

[6] National Marine Fisheries Service, *Backpack Electrofishing Guidelines* (December 1998) (http://www.nwr.noaa.gov/1salmon/salmesa/pubs/electrog.pdf).

handling of sick or injured specimens to ensure effective treatment, and in handling dead specimens to preserve biological material in the best possible condition for later analysis of cause of death. The finder also has the responsibility to carry out instructions provided by Law Enforcement to ensure that evidence intrinsic to the specimen is not disturbed unnecessarily.

2. To implement reasonable and prudent measure #2 (monitoring), the BLM shall provide NOAA Fisheries with an annual monitoring report by January 31 of each year that describes the BLM's efforts carrying out this opinion and contains the following information:
   a. Spawning survey data used to determine whether active spawning redds were likely to be present at or near road crossings between July 1 and August 15.
   b. Any change in the opening date of allowable road use that were made using those data.
   c. Any enforcement actions taken during the previous year, such as for unauthorized vehicle use outside the approved access period, unauthorized in-water work, or operation of vehicles leaking fuel or other contaminants.
   d. ACEC monitoring results relevant to use of the restricted section of Umatilla County Road #600.
   e. A summary of any BLM proposals to improve access or reduce impacts to MCR steelhead, including a description of any proposal that was carried out, the rationale for choosing the proposal, and the result.
   f. A summary of any fish salvage activities completed, including the name and address of the supervisory fish biologist, the means of fish capture, and any observations of dead or injured fish.
   g. Monitoring reports will be submitted to:

      Branch Chief - Portland
      NOAA Fisheries
      Attn: 1999/01851 (USFS), 1999/01802 (BLM)
      525 NE Oregon Street, Suite 500
      Portland, OR 97232

3. MAGNUSON-STEVENS ACT

3.1 Background

The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), established procedures designed to identify, conserve, and enhance essential fish habitat (EFH) for those species regulated under a Federal fisheries management plan. Pursuant to the MSA:

- Federal agencies must consult with NOAA Fisheries on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH (§305(b)(2)).
- NOAA Fisheries must provide conservation recommendations for any Federal or state action that would adversely affect EFH (§305(b)(4)(A)).
- Federal agencies must provide a detailed response in writing to NOAA Fisheries within 30 days after receiving EFH conservation recommendations. The response must include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with NOAA Fisheries EFH conservation recommendations, the Federal agency must explain its reasons for not following the recommendations (§305(b)(4)(B)).

EFH means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (MSA §3). For the purpose of interpreting this definition of EFH: "Waters" include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate. "Substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities. "Necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem, and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle (50 CFR 600.10). Adverse effect means any impact which reduces quality and/or quantity of EFH, and may include direct (*e.g.*, contamination or physical disruption), indirect (*e.g.*, loss of prey or reduction in species fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810).

EFH consultation with NOAA Fisheries is required regarding any Federal agency action that may adversely affect EFH, including actions that occur outside EFH, such as certain upstream and upslope activities.

The objectives of this EFH consultation are to determine whether the proposed action would adversely affect designated EFH and to recommend conservation measures to avoid, minimize, or otherwise offset potential adverse effects to EFH.

3.2 Identification of EFH

Pursuant to the MSA, the Pacific Fisheries Management Council (PFMC) has designated EFH for Federally-managed fisheries within the waters of Washington, Oregon, and California. Designated EFH for groundfish and coastal pelagic species encompasses all waters from the mean high water line, and upriver extent of saltwater intrusion in river mouths, along the coasts of Washington, Oregon and California, seaward to the boundary of the U.S. exclusive economic zone (370.4 km)(PFMC 1998a, 1998b). Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain

impassable artificial barriers (as identified by the PFMC 1999), and longstanding, naturally-impassable barriers (*i.e.*, natural waterfalls in existence for several hundred years) (PFMC 1999). In estuarine and marine areas, designated salmon EFH extends from the nearshore and tidal submerged environments within state territorial waters out to the full extent of the exclusive economic zone (370.4 km) offshore of Washington, Oregon, and California, north of Point Conception to the Canadian border (PFMC 1999).

Detailed descriptions and identifications of EFH are contained in the fishery management plans for groundfish (PFMC 1998a), coastal pelagic species (PFMC 1998b), and Pacific salmon (PFMC 1999). Casillas *et al*. (1998) provides additional detail on the groundfish EFH habitat complexes. Assessment of the potential adverse effects to these species' EFH from the proposed action is based, in part, on these descriptions and on information provided by the Agencies.

3.3 Proposed Actions

The proposed actions are detailed above in section 1.2 of the ESA portion of this Opinion. The action area includes the private land access project area and adjacent stream and riparian areas. This area has been designated as EFH for various life stages of chinook salmon.

3.4 Effects of Proposed Action

As described in detail in the ESA portion of this consultation, the proposed activities may result in detrimental, short-term, adverse effects to a variety of habitat parameters.

3.5 Conclusion

NOAA Fisheries believes that the proposed action will adversely affect the EFH for chinook salmon.

3.6 EFH Conservation Recommendations

Pursuant to section 305(b)(4)(A) of the Magnuson-Stevens Act, NOAA Fisheries is required to provide EFH conservation recommendations for any Federal or state agency action that would adversely affect EFH. In addition to conservation measures proposed for the project by the Agencies, all of the reasonable and prudent measures and the terms and conditions contained in section 2.4 of the ESA portion of this Opinion are applicable to salmon EFH. Therefore, NOAA Fisheries incorporates each of those measures here as EFH conservation recommendations.

3.7 Statutory Response Requirement

Please note that the Magnuson-Stevens Act (section 305(b)) and 50 CFR 600.920(j) requires the Agencies to provide a written response to NOAA Fisheries' EFH conservation recommendations within 30 days of its receipt of this letter. The response must include a description of measures proposed to avoid, mitigate, or offset the adverse impacts of the activity on EFH. If the response

is inconsistent with NOAA Fisheries' conservation recommendations, the reasons for not implementing the Agencies shall explain its reasons for not following the recommendations.

3.8 Supplemental Consultation

The Agencies must reinitiate EFH consultation with NOAA Fisheries if either action is substantially revised or new information becomes available that affects the basis for NOAA Fisheries' EFH conservation recommendations (50 CFR 600.920).

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Appendix A UNF Measures to Accommodate Water Drafting Concerns with Regard to MCR Steelhead.[7]

Road Maintenance Applications:

1. The UNF will not draft water from any pools which contain adult steelhead to avoid disturbing fish that may be spawning.

2. The UNF will avoid direct effects to redds or pre-emergence alevins by placing the intake hose in the deepest part of a drafting pool (where redds are unlikely to be present) and will avoid placing equipment on areas that redds are known or suspected to be. The UNF will also ensure that tailout areas of pools that are known or suspected to have redds will not be dewatered.

3. Approximately 90% of work can be accomplished through the use of one or more designated sites listed in the current list of water drafting sites (*i.e.*, UNF road maintenance water drafting site list).

4. The UNF will use non-stream water sources prior to use of stream sources, when non-stream sources are available within needed turn-around times and travel distances for the project.

5. When non-stream sources are unavailable, the largest streams are expected to provide for ~90% of spring through fall road maintenance water drafting needs. Examples of larger streams on the UNF are lower Desolation Creek, North Fork Touchet River, and the North Fork John Day River.

6. Blading, shaping, aggregate placement, and dust control (with limited exceptions) will be performed in spring and early summer when flows are high, to take advantage of available road soil moisture content, thereby minimizing the need for water drafting. Exceptions during the low-flow period will be limited to roads receiving heavy summer through fall traffic creating hazardous road surface conditions that require maintenance for human safety reasons. Essential maintenance during low-flow conditions will be deferred, when possible, until fall precipitation reduces the need for water drafting. Spring and fall blading and shaping will minimize demands for water usage, will minimize dust production, and will reduce sediment generated from surface erosion.

7. No more than one high-volume pump per site will be used, except at sites in main rivers and/or at the lowest point downstream within UNF boundary.

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[7] Information provided by UNF on December 5, 2002, via email.

8. During low flow periods on streams less than 5 cubic feet per second (cfs), in order to not reduce observed stream flow by more than 1/10th[8], the UNF will use lowest gallons per minute (gpm) rate on pumps which have adjustable draft rates, and will use the smallest volume tender appropriate to the project purpose (a 4,000 gallon tanker is common , and a 6,000 gallon tanker is unusual). Contractors will bypass marginal sources in order to maintain volume when the larger sources are available.

9. The UNF will monitor drafting during low flow periods for reduced flows down stream of drafting sites. If flow concern is identified, the UNF will recommend contractors conserve water by watering at night or early in morning when soil moisture can be maintained longer. Use of marginal sources will be allowed providing the contractor matches the pump volume to water quantity levels and flows.

10. During low flow conflicts, withdrawal from single sites will be limited to 18,000 gallons per day when more than one useable site is within practical turn-around times/distances of the application area. If only one useable site is available, daily use would only be restricted by pumping at lower gpm rates if necessary to maintain flow levels.

11. Designated sites with late-season flow concerns (streams with less than 5 cfs) will be identified as spring-use only for use by water tenders. These sites would become high priority for alternate source development(s).

12. The remaining ~10% of road maintenance that require drafting needs and cannot be accomplished using these measures will be addressed in separate consultation.

    a. For the remaining ~10% drafting needs and sites with late-season flow concerns, UNF could pursue funding to drill shallow groundwater wells, minimizing impacts through intermittent use, and/or develop more off-channel ponds to be filled during spring high flows via screened diversion weirs, pipes, <0.5 cfs pumps, or low-impact water ram pumps. Off-channel pond sources would be disconnected from the channel at lower stream flows. Shallow wells would avoid adverse impacts to surface flow through intermittent use.

13. Prescribed Fire Applications:

    a. UNF will use smallest (slowest gpm) portable pump appropriate to project purpose and objectives (*e.g.*, private property boundary protection). This would necessitate longer drafting intervals for the same volume of water withdrawn, and/or may entail more frequent withdrawal episodes, relative to duration/frequencies associated with portable pumps which have faster drafting rates.

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[8]Most construction tenders have pumps that can operate down to but not usually less than 200 - 250 gallons per minute

14. Level 1 Team reviews of drafting activities will be conducted periodically on an as-needed basis.